



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

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MEMORANDUM

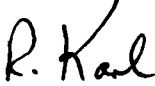
REPLY TO THE ATTENTION OF

DATE: OCT 04 2001

SUBJECT: ACTION MEMORANDUM - Determination of Threat to Public Health or Welfare or the Environment at the Lockformer Company, Lisle, Illinois, County of DuPage

FROM: Steven J. Faryan, On-Scene Coordinator
Emergency Response Branch

TO: William E. Muno, Director
Superfund Division

THRU: Richard Karl, Chief, 
Emergency Response Branch

EPA Region 5 Records Ctr.



235063

I. PURPOSE

The purpose of this memorandum is to document the determination of an imminent and substantial threat to public health and the environment posed by the presence of hazardous substances at the Lockformer Company, Lisle, Illinois, CERCLIS # ILN000508174. The hazardous substances identified in soil and groundwater at the site are trichloroethylene, tetrachloroethene, and perchloroethylene. The hazardous wastes and hazardous substances have been documented in high concentrations on site and have been documented in residential wells south of the site.

II. SITE CONDITIONS AND BACKGROUND

A. Site Description

Site ID # B5Y5

Latitude: 41°48' 07"N

Longitude: 088° 03' 46"

1. Lockformer Site Investigations

The Lockformer Company site is located at 711 West Ogden Avenue, in Lisle, Illinois. The site is located in a mixed residential/industrial area on the south side of Ogden Avenue, west of Interstate 355. The current owner and operator of the Site is the Lockformer Company, a wholly owned subsidiary of Metcoil Systems Corporation. In June of 2000 Mestek Inc., purchased Metcoil and thereby owns both Lockformer and Metcoil.

The Site consists of a one-story metal fabrication plant and connected office space and approximately 10 acres of land directly west of the facility. The Lockformer Company is in the business of manufacturing parts and equipment for the metal fabrication business. Lockformer's metal fabrication processes involved the use of trichloroethylene (TCE) degreaser which was located inside the building in a degreaser tank and pit. From approximately 1970 to 1992, the degreaser pit was filled by a 500 gallon storage tank located on the roof of the facility. The tank was filled by a fill line located on the west side of the building and a return vent line terminated at the same location. The storage tank was refilled until the liquid began to run out the vent pipe and on to ground. Between 1970 to 1992, continuous releases of TCE were associated with this method of filling the tank, none of which were reported to the U.S. EPA or IEPA.

Impacted soil was first discovered at the site in the fall of 1991, during underground utility (water line) repair work conducted on the west side of the building. In 1992, Lockformer hired STS to conduct a exploration of the TCE release and high levels of TCE were found in soils and soil borings collected on the west side of the property. The investigation detected levels of TCE as high as 680,000 ppb in soils and other solvents including tetrachloroethene and perchloroethylene were also detected. STS recommended to Lockformer to conduct soil remediation for an area estimated to be 1,200 cubic yards. Further investigation was recommended by STS.

Further site investigation was conducted at the Lockformer Company in May of 1995 by STS. Twelve additional borings were conducted and a mobile lab was used to screen samples. TCE concentrations were detected at 960,000 ppb in soil borings taken 15-17 feet below ground surface (bgs). No recommendations were included in this investigation.

STS prepared another investigation report titled "Additional Assessment of TCE Release" dated February 14, 1997. This report documents the sampling of groundwater monitoring wells which were installed and concentrations as high as 68,000 ppb of TCE were detected in on-site wells. Recommendations were made to further delineate the extent of contamination with soil gas probes and installed additional monitoring wells and soil borings.

A Phase I Environmental Assessment was conducted for the west parcel of the Lockformer property dated April 1, 1997. The report indicates that the storage tank was still intact on the Lockformer building and surface drainage is to the south and that the storm water drain terminated in a neighboring residential yard. This report indicates that no reporting was done by Lockformer of the TCE spills as noted in the Emergency Response Notification System (ERNS).

In 1998, STS submitted a Draft Focused Site Investigation/Remediation Objectives Report to the Illinois Environmental Protection Agency for the Lockformer facility. This report summarized all investigations to date, showing TCE contamination in the shallow fill soils and recommended source removal and treatment of soil to a depth of 19 feet in the fill pipe area. The report also summarized that TCE contamination had migrated downward and laterally to the northwest, south and southwest to a sand layer impacting groundwater at of depth 56 bgs.

STS recommended removal and treatment of contaminated perched ground water, installation of an engineered barrier and institutional controls restricting land use and potable wells on site.

Carlson Environmental submitted a draft surface soil and ground water investigation results document dated March 15, 1999 for Lockformer. The report shows soil and groundwater analytical results above the IEPA Tier 1 clean up objectives from the ground surface to 40-50 feet below ground surface. In addition, the report states that Carlson is researching the Village of Lisle well water ordinances and that the Village of Lisle told Carlson the residents in the vicinity of the site still use private wells.

To date, no remediation has been conducted on site. Lockformer petitioned the IEPA for a No Further Action Letter and attempted to obtain a ground water ordinance from the Village of Lisle restricting potable wells in the vicinity of the site. At the Village of Lisle board meeting the petition was questioned by residences and the village who showed numerous wells in the area and at least one well which was know to be contaminated. Information was presented that Lockformer had paid at least one resident on Front Street to connect to the Village of Lisle Water main.

The IEPA initiated private well sampling to the South of the facility in December of 2000. The IEPA collected samples from 48 private wells and found 34 homes with presence of TCE. Nine of the residences showed levels above the 5ppb the Maximum Concentration Level (MCL) under the Safe Drinking Water Act. Further sampling revealed two additional areas, Woodrich Estates and Suburban Estates, where TCE was found south of the facility.

The IEPA and Illinois Attorney General entered into an agreed order on January 22, 2001, to further investigate the ground water contamination, conduct a comprehensive Volatile Organic Compounds (VOC) Investigation, delineate the nature and extent of the contamination caused by TCE spills at the site, and to provide bottled water to the residents affected by TCE contamination in their wells.

Lockformer and their consultant Clayton Group Services submitted the "Comprehensive VOC Investigation Work Plan" in May of 2001 and bottled water was provide to the residences affected by the TCE contamination. Well installation initiated in June of 2001 and soil sampling, sewer investigation and sampling, monitoring well installation, ground water elevations and additional information was being collected.

2. U.S. EPA Assessment

On March 13, 2001 the IEPA referred the Lockformer facility to the U.S. EPA for a time critical removal action at the facility to address source areas at the facility on an expedited basis.

U.S. EPA and their contractor, Roy F. Weston, initiated an information collection phase, review of existing information, and have conducted three different site visits with IEPA and Clayton. In

addition, a technical information meeting was held on May 23, 2001 and discussion began as to what remediation plans would be forth coming. Clayton expressed at this time that their client, Lockformer was interested and supported a quick response to begin remediation of the known TCE contamination.

U.S. EPA conducted a Historical Aerial Photographic Analysis for the Lockformer Site dated July 2001. This report investigates the historical aerial photos at the site from 1967 to 1998. The report shows the TCE storage tank on top of the roof of the facility. The surface flow is shown on the aerial photos to move off of the West Parking lot where the TCE spills occurred toward the west parcel. The storm water appears to flow to the southwest corner of the parking lot to a drainage ditch which runs south to the Burlington Northern tracks.

The environmental consultant for Lockformer, Clayton Services, prepared a draft Removal Action Work Plan for the Lockformer facility and submitted the document to U.S. EPA on August 24, 2001. The Work Plan outlines the removal actions that will be completed by Lockformer pursuant to this Action Memorandum and associated Administrative Order. U.S. EPA will submit comments to Lockformer to incorporate into the Work Plan prior to start up of the removal action.

A Region 5 Superfund Environmental Justice (EJ) analysis has been prepared for the area surrounding the Site. This analysis is presented in Attachment III. In Illinois, the Region V EJ Case Criteria for low income is 54% or greater and the minority percentage is 50% or greater. Therefore, this site does not meet the region's EJ criteria based on demographics as identified in Region 5 Interim Guidelines for Identifying and Addressing a Potential EJ Case, June 1998.

B. Other Actions to Date

1. Previous actions

Numerous investigations have been conducted by Lockformer from 1992 to present. However, there has been no remediation conducted to date. Lockformer and their consultant Clayton are completing a Comprehensive VOC Investigation Work Plan which is part of an Agreed Order with IEPA and Illinois Attorney General.

2. State and Local Authorities' Roles

The IEPA, Illinois Attorney General and DuPage State's Attorney have entered into an Agreed Order with Lockformer to prepare and carry out a Comprehensive VOC Investigation Report at the Lockformer facility. In addition, bottled water is being provided to the residences found to have TCE contamination above the detection limit. The IEPA is leading the private well sampling effort and had identified 82 private wells on the west side of I-355 that have levels of TCE above the detection level. Of these, 15 wells have TCE concentrations above the MCL of 5 ppb.

An additional plume of TCE contamination has been identified on the east side of Interstate 355 in the Towns of Downers Grove and Woodrich. IEPA is currently sampling an additional 800 private wells in this area east of I-355 and investigating the potential sources of this contamination plume.

3. State and Local actions to date

The City of Lisle has initiated construction and installation of a water main in the Front and Riedy Street sections of town. The construction was completed in August of 2001 and residences are now obtaining permits to hook up to the water main. The cost of the hook up are being borne by the residences and the City of Lisle is providing a no-interest loan for seven years to pay back the assessment fees.

The City of Lisle has joined on to the State of Illinois lawsuit and agreed order to try to recuperate costs of the water main installation and other associated costs.

The IEPA referred the site to U.S. EPA in March of 2001 asking for assistance in conducting an emergency removal action at the facility. The levels of TCE in the residential areas while being above the MCL of 5ppb were not above the Removal Action Levels of 300 ppb, therefore the removal program could not assist with the hook up of the residential wells contaminated with TCE.

4. Potential for continued State/Local response

The IEPA will continue to lead the ground water investigation and private well sampling in Lisle, Downers Grove, and Woodrich areas. The Village of Lisle and Woodrich are awaiting referendum votes this November to see if residences in the Woodrich Estates area and Suburban Estates Area are in favor of installing a municipal water supply system. If city water is installed in this area both towns are requiring annexation.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to Public Health or Welfare

The conditions documented at the Site constitute a threat to public health, welfare, or the environment based upon the factors set forth in Section 300.415(b)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan, as amended ("NCP"), 40 CFR § 300.415(b)(2). These factors include, but are not limited to, the following:

Actual or potential contamination of drinking water supplies or sensitive ecosystems.

This factor is present at the Site due to the existence of high levels of TCE in the surface and

subsurface soils and groundwater that has been documented by Lockformer and their consultants to be migrating vertically and horizontally toward the sand and gravel deposits and ultimately to the bedrock aquifer. Sampling by IEPA from private wells and monitoring wells found levels of TCE above the MCL and ground water gradients which were prepared by IEPA's contractor Parsons Engineering show that the ground water flow from the Lockformer property is toward the South /South East in the direction of the residential homes.

High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate.

This factor is present at the Site due to the existence of high levels of TCE that has been documented to be released to the soil and ground water. The high levels of TCE in the surface soil and subsurface soil is migrating vertically and horizontally and will continue to migrate to the bedrock aquifer, causing further ground water contamination.

Weather Conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.

This factor is present due to the existence of documented concentrations of TCE in the soil and ground water on site that has been shown to be migrating. The ground water flow in the area has been shown to be toward the South/South East and continuing precipitation and percolation of storm water will continue to cause the TCE to migrate toward the bedrock aquifer which flows to the residential wells.

The unavailability of other appropriate federal or state response mechanisms to respond to the release.

This factor is present at the Site due to IEPA's request for U.S. EPA's assistance to conduct a removal action at the Lockformer facility. The IEPA will continue to conduct private well sampling and investigation of the TCE ground water contamination in Lisle, but seeks U.S. EPA's assistance to expedite removal of contaminated source areas.

IV. ENDANGERMENT DETERMINATION

Given the site conditions, the nature of the hazardous substances on site, and the potential exposure pathways to nearby populations described in Sections II and II above, actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response actions selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. PROPOSED ACTIONS

A. Proposed Actions

1. Proposed Action Description

The Work to be Performed will be conducted under a Unilateral Order. The Order will direct the PRP's to conduct the actions necessary to mitigate threats posed by the presence of hazardous substances at the Lockformer Site. The actions listed below are proposed to eliminate the threats posed in the previous section Threats to Human Health and the Environment.

2. Work to Be Performed

Respondents shall perform, at a minimum, the following response activities:

- a. Prepare and implement a Removal Action Work Plan to assess and mitigate the documented threats posed by contaminants found at the Lockformer Site. This Removal Action Work Plan shall include an Extent of Contamination investigation to assess the vertical and horizontal migration of the identified contaminants. The Removal Action Work Plan shall also assess and mitigate other known storage or disposal areas or areas where releases occurred. These include the degreaser pit area, associated pipes and drains, building sewers and sumps, the building's roof, down spouts, storm sewers and drains and ditches, and any other indoor or outdoor drum or tank storage area. The staged pile of fill at the south end of the building shall be sampled and characterized prior to being used as backfill. This Removal Action Work Plan shall include a Health and Safety Plan and Quality Assurance and Quality Control Plan as attachments;
- b. Control access to portions of the property where contaminants have been detected or are known to be disposed to prevent exposure to workers, the public entering the facility, and to neighboring residents. This shall include fencing, tarping, or placing of contaminated materials in containers. Portions of the parking lot may have to be closed and fence erected to allow for excavation, treatment and backfilling;
- c. Take necessary actions to prevent and control migration of contaminants into the ground water, soil, sewers, roadways, neighboring residences, and the St. Joseph's Creek; this may include barrier walls, vapor and water phase treatment systems or other proven technologies;
- d. After delineating the vertical and horizontal extent of contamination, remove, treat, and properly dispose of all hazardous substances and contaminated materials

at an approved facility which is in compliance with the CERCLA Off-Site Rule. Backfill all areas with stone and clean fill to the pre-existing grade;

- e. Decontaminate, remove, and dispose of all tanks, scrap metal, equipment, sumps, sewers, building floors, walls, or roofing materials which have come into contact with or which have been used to store, treat, or process any of the identified contaminants; and
- f. Prepare and implement a Confirmation Sampling Plan to determine if appropriate clean-up standards have been met. The plan shall provide for sampling of soil, chemical product in the groundwater, surface water, metal and concrete floors, walls and roofing material

4. Applicable or relevant and appropriate requirements (ARARs)

All applicable or relevant and appropriate requirements (ARARs) of Federal Law will be complied with to the extent practicable. A letter has been sent to the IEPA on October 1, 2001 requesting that it identify State ARARs. Any State ARARs identified in a timely manner for this removal action will be complied with to the extent practicable.

5. Post Removal Site Control

The OSC has begun planning for provision of post-removal site control, consistent with the NCP. The response actions described in this memorandum directly address actual or threatened releases of hazardous substances, pollutants or contaminants at the facility which may pose an imminent and substantial endangerment to public health and safety, and to the environment. These response actions do not impose a burden on affected property disproportionate to the extent to which that property contributes to the conditions being addressed.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Immediate action is required at the site due to an on going migration of contaminants. Delay or non-action will result in an increased chance of direct contact threat, ingestion, and exposure to the residents, and will increase the chance of migration of contaminants into the groundwater, soil, and surface water.

VII. OUTSTANDING POLICY ISSUES

No significant policy issues are associated with the Lockformer Company Site.

VIII. ENFORCEMENT

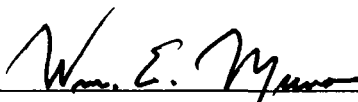
The PRPs have been identified and appropriate enforcement action has been initiated. A Unilateral Administrative Order will accompany this Determination of Threats Action Memorandum to conduct the Work to be Performed addressed above. Lockformer and their consultant Clayton Services have submitted a draft Removal Action Work Plan to U.S. EPA on August 24, 2001. Lockformer has verbally stated that they will conduct the removal action at the facility.

An Enforcement Confidential Addendum is found in Attachment 1.

IX. RECOMMENDATION

This decision document represents the selected removal action for the Lockformer Company Site, developed in accordance with CERCLA as amended, and is not inconsistent with the NCP. This decision is based on the Administrative Record for the site (Attachment 2). Conditions at the site meet the NCP section 300.415 (b)(2) criteria for a removal action. I recommend your approval of the proposed removal actions and of this Endangerment Action Memorandum. If approved these actions will eliminate the threats to public health and the environment.

APPROVED: _____


William Muno, Director,
Superfund Division

DATE: _____

10/4/01

DISAPPROVED: _____

William Muno, Director,
Superfund Division

DATE: _____

Attachments: 1- Enforcement Addendum
2-Administrative Record
3- EJ Analysis

cc Tom Krueger, Assoc. Regional Counsel
Carol Ropski, Enforcement Specialist
K. Stanton, HQ, Region V Coordinator
D. Henne, U.S. Department of Interior, w/o Enf. Addendum
S. Komperda, IEPA, w/o Enf. Addendum
R. Cipriano, IEPA, w/o Enf. Addendum
S. Davis, IDNR, w/o Enf. Addendum

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BCC PAGE

HAS BEEN REDACTED

**NOT RELEVANT TO THE SELECTION
OF THE REMOVAL ACTION**

ATTACHMENT 1

**ENFORCEMENT ADDENDUM
LOCKFORMER COMPANY SITE**

AUGUST 2001

1 PAGE

HAS BEEN REDACTED

**NOT RELEVANT TO THE SELECTION
OF THE REMOVAL ACTION**

ATTACHMENT 2

U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTIONADMINISTRATIVE RECORD
FOR
LOCKFORMER COMPANY SITE
LISLE, DUPAGE COUNTY, ILLINOISORIGINAL
SEPTEMBER 12, 2001

<u>NO.</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
1	06/10/92	STS Consultants, Inc.	Seyfarth, Shaw, Fairweather & Geraldson	Report: Draft Preliminary Exploration of TCE Release at the Lockformer Company Plant	30
2	05/25/95	Newlin, S. & R. Berggreen, STS Consultants, Inc.	Szklany, A., The Lockformer Company	Letter re: Data Collected from the Remedial Investi- gation at the Lockformer Company Site	47
3	02/14/97	STS Consultants, Ltd.	The Lockformer Company	Report: Additional Assessment of TCE Release for the Lockformer Facility	84
4	04/01/97	Environmental Associated Services & Engineering, Inc.	Hinshaw & Culbertson	Revised Phase I Environ- mental Site Assessment for Undeveloped Land at 711 Ogden Avenue in Lisle, IL	13
5	02/24/98	STS Consultants, Inc.	The Lockformer Company	Report: Draft Focused Site Investigation and Remedial Objectives for the Lockformer Facility	44
6	01/22/99	Meagher, L., Carlson Environmental, Inc.	Cummings, M., Illinois EPA	Letter re: Revised Proposal for Additional Subsurface Soil and Ground Water Investigation at the Lockformer Company Site w/ Attachments	26
7	03/15/99	Meagher, L., Carlson Environmental, Inc.	Cummings, M., Illinois EPA	Letter re: Draft Sub- surface Soil and Ground Water Investigation Results for the Lockformer Company Site w/ Attachments	22

<u>NO.</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
8	09/15/99	Meagher, L., Carlson Environmental, Inc.	Wroble, L., Lisle Resident	Letter re: Analytical Results for Water Samples Collected from Three Sites in Lisle and the Draft Subsurface Soil and Ground Water Investigation Results for the Lockformer Company Site w/ Attachments	30
9	10/15/99	Garske, E., Carlson Environmental, Inc.	Cummings, M., Illinois EPA	Letter re: Additional Actions Required to Obtain a No Further Remediation (NFR) Letter for the Lockformer Company Site	34
10	07/27/00	Doerr, C., Village of Lisle	Biederman, D., Law Offices of Chuhak & Tecson	Letter re: Ground Water Ordinance Request for the Lockformer Company Site w/ Attachments	68
11	01/22/01	Circuit Court for Eighteenth Judicial District/ DuPage County	Respondents	Agreed Order for Immediate and Preliminary Injunction With Defendant Lockformer re: the Lockformer Company Site	13
12	03/13/01	Illinois EPA	Bolen, B., U.S. EPA	Letter re: Illinois EPA's Request for the Assignment of an On-Scene Coordinator for the Lockformer Company Site (PENDING)	1
13	03/26/01	Clayton Group Services	U.S. EPA	Comprehensive VOC Inves- tigation Work Plan for the Lockformer Company Site	59
14	07/00/01	U.S. EPA/ ESD	U.S. EPA	Historical Aerial Photo- graphic Analysis for the Lockformer Site w/ Cover Letter	42
15	08/24/01	Clayton Group Services	U.S. EPA	Removal Action Work Plan for the Lockformer Company Site	101
16	09/05/01	Johnson, M., Department of Health and Human Services/ PHS/ATSDR	Faryan, S., U.S. EPA	Initial Release Public Health Assessment for the Lockformer Company w/ Cover Letter	15

<u>NO.</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
17	00/00/00	Circuit Court for Eighteenth Judicial District/ DuPage County	Respondents	Verified Complaint for Injunction and Civil Penalties re: the Lock- former Company Site	15
18	00/00/00	Faryan, S., U.S. EPA	Muno, W., U.S. EPA	Action Memorandum: Determination of Threat to Public Health or Welfare or the Environ- ment at the Lockformer Company Site (PENDING)	

ATTACHMENT 3
ENVIRONMENTAL JUSTICE ASSESSMENT

Region 5 Superfund EJ Analysis

Lockformer Site Lisle, IL

